

Name : **Dr. RAJENDRA PRASAD SOMINENI**
 Designation : Professor
 Department : ECE
 Mail.ID : rajendraprasad_s@vnrvjiet.in
 Experience (in years): Teaching: 19 Research: 11 Others (If any, Specify): 0



1. Educational / Technical qualifications:

S.No	Level (UG / PG / Ph.D)	Year of Passing	Specialization
1	Ph.D	2015	Low-Power VLSI
2	M.Tech	2006	LICS
3	B.Tech	2002	ECE

2. Teaching and Learning:

- 2.1. Teaching Interests: MSRFIC, LPVLSID, ACMOSICD, Analog Circuits, VLSI, MPMC, EDC, ECA, SS, CT, CS, AC, DICA, PDC, EC, NA
 2.2. Novel Teaching & Learning Techniques adopted: WIT& WIL; POGIL
 2.3. Involvement in curriculum updating / Design: Yes

3. Co-curricular and Extra-Curricular Activities

- 3.1. Interests and Hobbies: Playing all Sports and Games
 3.2. CCA/ECA Organized: Organized Kabaddi in Sports Fest-2019, 2018, 2017, 2016 and 2015. Co-ordinator for Convergence 2K16.
 3.3. CCA/ECA participated: Nil
 3.4. Counselling and Mentoring Activity: Actively Involving
 3.5. Committees involved in:
 Department level: Head of the Department; BoS Chairman, Member of DAC; PAC;
 Institute Level: GC, FPDC, IAC, Finance Committee; IQAC Committee;

4. Conference / Workshop / Seminar / Guest Lectures:

- 4.1. Conducted: 2
 4.2. Attended: 35

5. Academic Contribution and Research & Consultancy:

- 5.1. Invited Lectures: 8
 5.2. Articles/Chapters published in Books: 5
 5.3. Books published as single author or as editor: Nil
 5.4. Projects Guided:
 a) UG: 25 b) PG: 8
 5.5. Research Interests: Low-Power VLSI; CNTFET-based Designs; Embedded Systems
 5.6. Ph.D students:
 a) Enrolled: 4 b) Submitted: 1 c) Awarded: 1
 5.7. Papers published in reviewed Journals:

S. No	Title of the Paper	Journal Name Vol. No. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Design and Performance Analysis of 32 × 32 Memory Array SRAM for Low-Power Applications	Electronics 2023 , 12 (4), 834	20799292	2.690	International
2	A Symmetric Novel 8T3R Non-	Symmetry Journal, Volume	20738994	2.940	International

	Volatile SRAM Cell for Embedded Applications	14, Issue 4, April 2022, Article number 768			
3	“Design and Performance Analysis of 6T SRAM Cell in Different Technologies and Nodes”	[J]. Int. J Performability Eng, 2021, 17(2): 167-177.	0973-1318	1.20/Scopus	International
4	VLSI based Error Correction Code Using Fault-tolerant Parallel FFTs	International Journal of Engineering and Advanced Technology (IJEAT) Volume-8, Issue-6, pp. 2361-2364, August 2019.	ISSN: 2249 – 8958	Scopus Indexed	International
5	Riverbed Modeler Simulation-Based Performance Analysis of Routing Protocols in Mobile Ad Hoc Networks	International Journal of Recent Technology and Engineering (IJRTE), Volume-7, Issue-6S, pp. 350-354 March, 2019.	ISSN: 2277-3878	Scopus Indexed	International
6	Low Power and High Speed Synchronous Carry Generate Adder using Modified Gate Diffusion Input Technique	International Journal of Engineering and Advanced Technology (IJEAT), Volume-8, Issue-2S2, pp. 192-196, January 2019.	ISSN: 2249 – 8958	Scopus Indexed	International
7	Performance Comparison for Ripple Carry Adder Using Various Logic Design.	International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-4S2, pp. 372-377, March,	ISSN: 2278-3075	Scopus Indexed	International

		2019.			
8	Analysis of CMOS and CNTFET sense amplifiers in SRAM cell	International Journal of Creative Research Thoughts (IJCRT), Volume 5, Issue 4, pp. 2570-2577, December -2017	ISSN: 2320-2882	UGC Listed Journal No.- 49023	International
9	Performance Evaluation of SRAM Cell Sense Amplifiers	International Journal of Advance Engineering and Research Development, e-Volume 4, Issue 6, pp. 751-758, June -2017	ISSN (O): 2348-4470	UGC Listed Journal No.- 44839	International
10	Water Quality Monitoring and Controlling in Irrigation using Zigbee Technology	International Journal of Science, Engineering and Technology Research (IJSETR), Volume 4, Issue 1, pp. 210-214, January 2015	ISSN: 2278 – 7798	3.59	International
11	Real-Time Monitoring and Controlling of Undissolved Particle	International Journal of Science, Engineering and Technology Research (IJSETR), Volume 3, Issue 12, pp. 3496-3501, December 2014	ISSN: 2278 – 7798	3.59	International
12	Design of Low-Leakage CNTFET SRAM Cell at 32nm Technology using Forced Stack Technique	International Journal of Engineering Research and Applications (IJERA), Vol. 2, Issue 1, pp. 805-808, Jan.-Feb. 2012	ISSN: 2248-9622	1.69	International

13	Design of Low Write-Power Consumption SRAM Cell based on CNTFET at 32nm Technology	International Journal of VLSI Design & Communication Systems (VLSICS), Vol. 2, No. 4, pp. 167-177, Dec. 2011	ISSN:0976-1527	1.69	International
14	A New Low Power 9T SRAM Cell based on CNTFET at 32nm Technology Node	International Journal of Computer Science and Information Technologies (IJCSIT), Vol. 2 (6), pp.2761-2764, Nov.-Dec. 2011	ISSN:0975-9646	2.93	International
15	High-Performance Memory Cell Design at 32nm Technology based on CNTFET for Low-Power Embedded Systems	International Journal of Advances in Science and Technology (IJAST), Vol. 3, No. 4, pp.46-52, Oct.-2011	ISSN:2229-5216		International
16	Reduction of Delay and Cross Talk using Buffer Insertion Method	International Journal of Electrical, Electronics & Computing Technology, Vol.1(2), pp.34-40, Jan.-Apr. 2011	ISSN: 2229-3027		International
17	Conceptual and Optimization Problems in Wireless Ad-hoc Sensor Networks	International Journal of Electrical, Electronics and Computing Technology (IJEECT), Vol.1, Issue-1, September-December 2010, pp 52-57	ISSN: 2229-3027		International

5.8. Papers presented at National / International Conferences:

S. No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	Characterization for Sub-5nm Technology Nodes of Junctionless Gate-All-Around Nanowire FETs	IEEE 2022 13th International Conference on Computing Communication and Networking Technologies (ICCCNT), October 2022	International	2022-23
2	Performance Analysis of RRAM Based Low Power NVSRAM Cell Designs for IoT Applications	IEEE 2022 2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET), June 2022	International	2022-23
3	Design and Analysis of 16nm GNRfet and CMOS Based Low Power 4kb SRAM Array Using 1-Bit 6T SRAM Cell	2022 IEEE IAS Global Conference on Emerging Technologies (GlobConET), 2022, pp. 102-108	National	2022-23
4	Design and Analysis of Different Full Adder Cells Using New Technologies”	Lect. Notes Electrical Eng., Margarita N. Favorskaya et al. (Eds): Innovations in Electrical and Electronic Engineering, 496540_1_En, (Chapter 45), Vol. 661, 978-981-15-4691-4. August 24, 2020	International	2020-21
5	Design of Low Power Multiplier Using CNTFET	2017 IEEE 7 th International Advance Computing Conference (IACC-2017)	International	2016-17
6	Implementation of wireless Sensor Network for Real Time Overhead Tank Water Quality Monitoring	2017 IEEE 7 th International Advance Computing Conference (IACC-2017)	International	2016-17
7	Design and Implementation of Wireless Sensor Node for Water Quality Monitoring	IEEE 4th International Conference on Computing, Communication and Sensor Network (CCSN-2015), 24-25th December, 2015, in Kolkata, India.	International	2015-16

	System			
8	Implementation of Wireless Sensor Network for Water Quality Measurements	IEEE 4 th International Conference on Computing, Communication and Sensor Network (CCSN-2015), 24-25 th December, 2015, in Kolkata, India.	International	2015-16
9	Network-On-Chip Technology using Encoding Techniques	IEEE 4 th International Conference on Computing, Communication and Sensor Network (CCSN-2015), 24-25 th December, 2015, in Kolkata, India.	International	2015-16
10	Low-Leakage CNTFET Full Adders	IEEE Global Conference on Communication Technologies (GCCT - 2015), April 23-24, 2015, Kanyakumari, INDIA.	International	2014-15
11	Low-Leakage CNTFET SRAM Cells	Elsevier Third International Conference on Recent Trends in Computing (ICRTC 2015), Delhi, India, March 12th – 13th, 2015	International	2014-15
12	Data-Retention Sleep Transistor CNTFET SRAM Cell Design at 32nm Technology for Low-Leakage	Springer 2 nd International Conference on Advances in Information Technology and Mobile Communication – AIM 2012, Bangalore, India, April 27-28, 2012, pp.247-253.	International	2011-12
13	A CNTFET SRAM Cell Design at 32nm Technology for Low Leakage-Power	IEEE 4 th International Conference on Electronics Computer Technology (ICECT-2012), Kanyakumari, India, April 6-8, 2012, pp.298-302.	International	2011-12
14	Reduction of Leakage-Power in CNTFET SRAM Cell using Stacked Sleep Technique at 32nm Technology	IEEE International Conference on Advances in Engineering, Science and Management (ICAESM– 2012), Nagapattinam, India, March 30-31, 2012, pp.244-248	International	2011-12
15	Design of 32nm Forced Stack CNTFET SRAM Cell for Leakage Power Reduction	IEEE International Conference on Computing, Electronics and Electrical Technologies (ICCEET-2012), Nagercoil, India,	International	2011-12

		March 21-22, 2012, pp. 629-633		
16	Design of a 32nm 7T SRAM Cell based on CNTFET for Low Power Operation	IEEE International Conference on Devices Circuits and Systems (ICDCS-2012), March 15-16, 2012, pp.443-446	International	2011-12
17	Low Leakage-Power SRAM cell design using CNTFETs at 32nm Technology	Springer 3 rd International Conference on Communication, Network, and Computing (CNC-2012), Chennai, India, February 24-25, 2012, pp. 165-171	International	2011-12
18	Design and Analysis of CNTFET-based Logic Gates at Nano Technology	National Conference on Emerging trends in Signal Processing and Embedded Systems (SPES-2012), Hyderabad, India, FeJanuary-2012	National	2011-12
19	Design and Analysis of Conventional SRAM Cell at 32nm Technology Node for Low-Power Embedded Systems	IETE National Conference on Recent trends in Communications & Signal Processing Techniques (SANKETA-2012), Tirupati, India, January-2012, pp.174-178	National	2011-12
20	Efficient Low Power Designs for Embedded systems	National Conference on Nanoelectronics, Vaagdevi College of Engineering, Warangal, on 25 th December, 2007	National	2007-08

5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed
1	Dev. of effective Wireless sensor Network system for water quality and quantity monitoring (AquaSense)	ITRA, Media Lab Asia, Delhi	5Yrs (Jan. 2014-Dec. 2019)	33 Lakhs	Completed

5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed
	Nil				

5.11 Guest Editor/ Reviewer for:

1. Guest Editor - International Journal of Sensors and Sensor Networks (IJSSN)
2. IEEE - Transactions on Devices and Materials Reliability (<https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=7298>)
3. Elsevier - Microelectronics Journal (<https://www.journals.elsevier.com/microelectronics-journal>)
4. Springer - Journal of Computational Electronics (<https://www.springer.com/journal/10825>)
5. Scopus indexed - Heliyon - a peer-reviewed open access journal - (<https://www.cell.com/heliyon/home>)
6. Wiley - International Journal of Circuit Theory and Applications (IJCTA) (<https://onlinelibrary.wiley.com/journal/1097007x>)
7. Springer - International Journal of Speech Technology (IJST) (<https://www.springer.com/journal/10772>)
8. International Journal of Reconfigurable and Embedded Systems (IJRES) (<http://ijres.iaescore.com/index.php/IJRES/>)
9. International Journal of Distributed Sensor Networks (<https://in.sagepub.com/en-in/sas/international-journal-of-distributed-sensor-networks/journal202573#editorial-board>).
10. International Journal of VLSI Design & Communication Systems
11. Physical Review & Research International (www.sciencedomain.org).
12. IEEE International Conference on Information processing, 16-19, Dec-2016. (<http://www.icip.in/>)
13. 7th IEEE International Advance Computing Conference (IACC 2017), 5-7 Jan-2017 (<http://iacc2017.com/>).
14. International Journal of Sensor Networks published by Inderscience Publishers (<http://www.inderscience.com/>).

6. Awards / Honors received: Nil

7. Motto: Working hard with sincerity towards the goal.